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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SUKHAPHADHANA, CHRISTOPHER T

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 04/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/510,190

Applicant(s)

ITO, WATARU

Examiner

Christopher T. Sukhaphadhana

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 24 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. This Action is in response to Applicant's Amendment filed 24 Feb 2003.
2. The Amendment filed 24 Feb 2003 has been received and entered in full.
3. Based on Applicant's amendments and persuasive arguments, the objections to the title and specification are withdrawn.

Drawings

4. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 24 Feb 2003 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.
5. Based on Applicant's drawing corrections, the objection to the drawings is withdrawn.

Response to Arguments

6. Applicant's arguments, see Amendment, paragraph bridging p13-14, filed 24 Feb 2003, with respect to the rejection(s) of claim(s) 1-3 under 35 USC 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Chen (U.S. Patent 6,141,442) as described below.
7. The 35 USC 112, first paragraph, rejections are respectfully maintained.
8. In Amendment filed 24 Feb 2003, Applicant argued in substance that:

a. Claims 1-3 have been amended to clarify the use of “and/or”.

Examiner addresses these amendments in the 35 USC 112, second paragraph, rejection below.

b. Methods towards enablement of all the combinations of “and/or” are addressed in the related art section of the present specification, namely JP 6(1994)-67320 (submitted as Nakamura et al (U.S. Patent 5,278,921) in IDS paper #3) and JP 8(1996)-110603 (submitted as English abstract in IDS paper #3, hereafter Kawai).

Nakamura '921 teaches in col 11, line 12 – col 12, lines 17, of computing an exposure control value with the proper exposure E_i to control the color modulation filter 16 (col 11, line 20). In the subsequent text, Nakamura describes calculating the exposure E_i in terms of CS color slope and D average density value of print frame. Thus, Nakamura teaches adjusting color based on color and density information. The Examiner fails to see Nakamura teaching or enabling any of the other 8 combinations listed in the prior office action, paragraph 5, sub-paragraph 2.

Kawai teaches in the abstract of optically reading the color original image of a film 1 to enable B(blue), G (green), and R (red) values of respective pixels to be obtained by color separation. The lightness information of the extracted face region is determined.

Illumination light distribution is determined from lightness information of the face region. The unequalness of the illumination light is then negated and the colors of the image are so adjusted that the face region attains the adequate lightness in accordance with the illumination light distribution determined in such a manner. (Irrelevant portions left out for brevity). Thus, if illumination reads on density, Kawai teaches color and

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density adjustment based on color and density information. However, the color and density information is only of the extracted face region, and not “density information and/or color information, respectively, of an area surrounding the face area” as stated in claim 1 and similarly in the other independent claims. Hence, Kawai does not teach or enable any of the aforementioned combinations with respect to the claimed material. So, upon further review, among the present disclosure as addressed in the prior office action, Nakamura ‘921, and Kawai, of the nine cases, only three show some support in the disclosure: adjusting density based on density (equations 1 and 2 of present disclosure), adjusting color based on color (p 8, lines 18-22, of present disclosure), and adjusting color based on color and density (col 11, line 12 – col 12, lines 17, Nakamura ‘921). The other six cases are not described in such a way as to enable one of ordinary skill in the art to make and/or use the invention as claimed.

c. Office Action fails to support or even make the assertion that one of ordinary skill in the art would require undue experimentation to adjust the color of a face area consistent with principles set forth in the disclosure.

While the main body of the Examiner’s 112, first paragraph, rejection argument is presented with respect to point b above, one of ordinary skill in the art would require undue experimentation to adjust the color of a face area consistent with principles set forth in the disclosure because such an adjustment based on the principles stated has not been taught in the disclosure nor any of the relevant art cited by Applicant.

Claim Rejections - 35 USC § 112

9. The following 35 USC 112, first paragraph, rejection is respectfully maintained and incorporated below from the previous office action.

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The expression 'and/or' lends itself to the interpretation of reading both 'and' and 'or' into the claim. Thus, nine (9) cases appear in the reading of each claim: adjusting density based on density information, adjusting density and color based on density, adjusting color based on density, adjusting density based on density and color, adjusting density and color based on density and color, adjusting color based on density and color, adjusting color based on density, adjusting color based on density and color, and adjusting color based on color.

Of the nine cases, only two show some support in the disclosure: adjusting density based on density (equations 1 and 2) and adjusting color based on color (p 8, lines 18-22). The other seven cases are not described in such a way as to enable one of ordinary skill in the art to make and/or use the invention as claimed.

Furthermore, in the aforementioned case of adjusting color based on color, the applicant fails to provide adequate description of the method of utilizing the color information to adjust the color of the face area. I.e., while the applicant discloses one specific example for the invention (p

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8, line 18), the applicant fails to provide an adequate method of utilizing a relationship between color information and the corresponding adjustments of color in the facial area (i.e. how does the invention do it?).

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. In regards to claim 1, how does the “at least one of density and/or color information” align with the “based on density information and/or color information, respectively”? More specifically, of the nine combinations interpretable from this language (described in detail in the prior Office Action, paragraph 5, sub-paragraph 2), which combinations is Applicant claiming?

15. In regards to claims 2-4 and 9, a similar line of questioning applied to claim 1 is applicable.

16. In regards to claims 5-8, these claims inherit the indefinite claim language of claim 1.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen

(U.S. Patent 6,141,442).

19. In regards to claim 1, Chen discloses an image processing method (Fig 15) comprising the steps of extracting a face area of a figure (ref 1501 and 1502, Fig 15 and col 12, lines 62-66) from an image and adjusting a color of the face area (Fig 16 and 17 and col 15, lines 4-14) based on color information of an area surrounding the face area.

20. In regards to claims 2-4 and 9, all the elements set forth in this claim have been addressed in the argument of claim 1.

21. In regards to claim 5, Chen further discloses designating an area surrounding the face area as a concentric area excluding the face area (see ref no 1502, Fig 15). Note that the rectangle containing the face area R_i and the rectangle representing the colored area C_0 share the same center (**con•cen•tric** 1: having a common center, Merriam-Webster's Collegiate Dictionary, 10th ed © 1993).

22. In regards to claim 7, Chen further discloses in col 7, line 50 – col 8, line 11, dividing the surrounding area into sub areas and calculating an average pixel density.

23. In regards to claim 8, Chen further discloses in col 13, lines 18-62, calculating color information of the area surrounding the face.

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen as applied to claim 1 above.

In regards to claim 6, Chen does not expressly disclose determining the area surrounding the face area such that the area surrounding the face area has a radius of 3 times a radius of the face area.

However, Chen demonstrates in ref 1502, Fig 15, of an area surrounding the face area has having an area approximately 2 times the area of the face area.

It would have been obvious to one of ordinary skill in the art at the time of the invention to determine the area surrounding the face area such that the area surrounding the face area has a radius of 3 times a radius of the face area. Applicant has not disclosed that an area with radius 3 times the radius of the face area provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with an area surrounding the face area having an area approximately 2 times the area of the face area because Applicant's invention only needs to derive values from an non-face area independent of the actual dimensions.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher T. Sukhaphadhana whose telephone number is 703-306-4148. The examiner can normally be reached on 9a-4p M-F.

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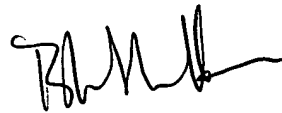
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

CTS

CTS

April 17, 2003



**BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
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